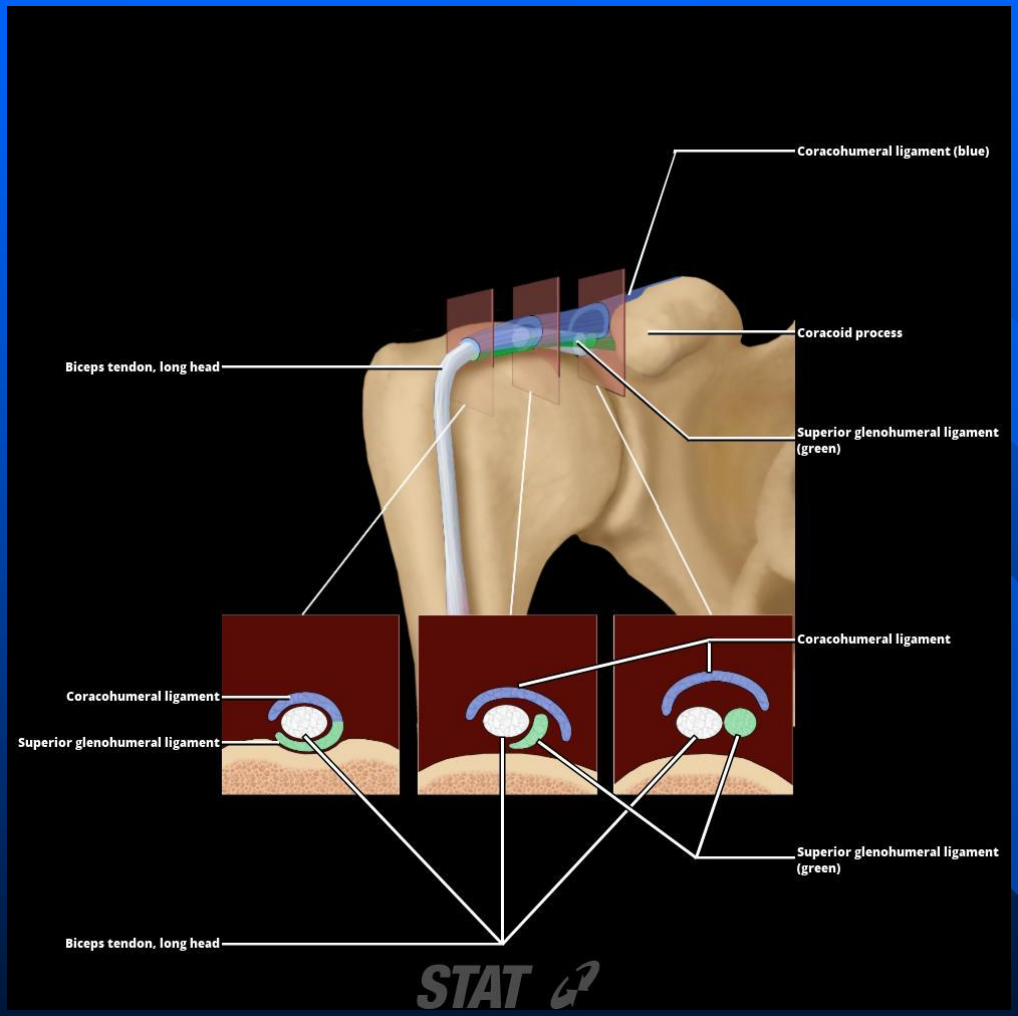
Rotator Cuff Interval

- Anatomic space bounded by the subscapularis, supraspinatus, and coracoid.
- This space contains the coracohumeral and superior glenohumeral ligament, the biceps tendon, and anterior joint capsule.
- The coracohumeral (CH) ligament acts as the roof of this space.
- Both the coracohumeral ligament and the glenohumeral ligament have a complex relationship with the long head of biceps tendon.

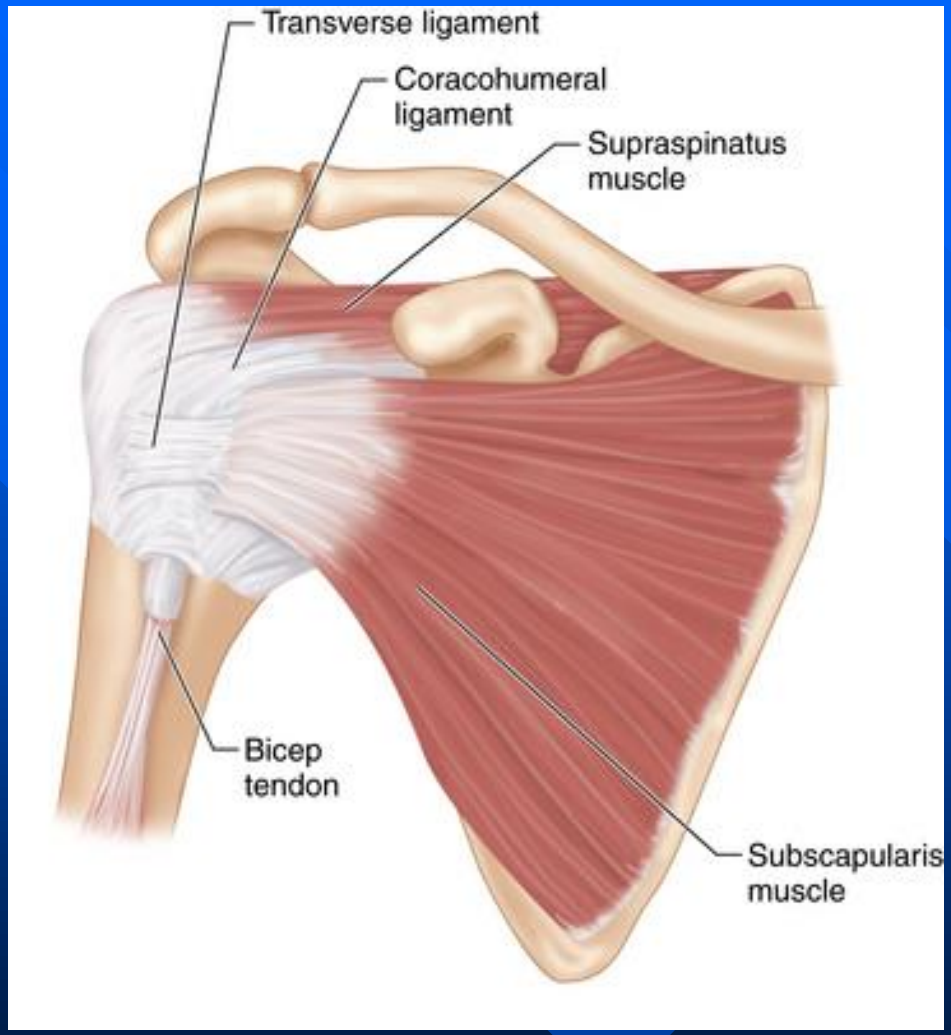
Relavance

- Scarring of the rotator interval structures can lead to adhesive capsulitis.
- Often the client will complain of pain at night and at rest, have limited ROM'
- Any laxity of these structures (ie GH and CH ligaments as well as the anterior joint capsule) can lead to shoulder instability.

Rotator interval anatomy



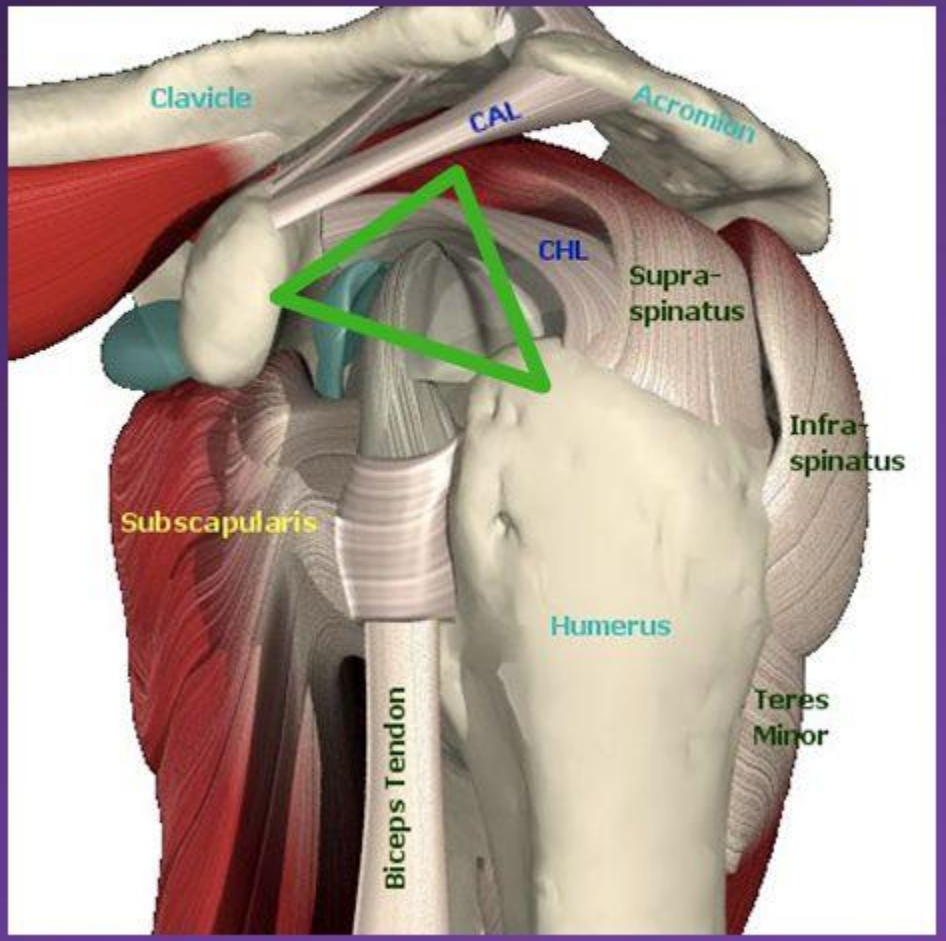
- At the lateral aspect of the rotator interval, just proximal to the entrance to the bicipital groove, the coracohumeral ligament (blue) and superior glenohumeral ligament (green) form a sling around the long head of the biceps tendon.
- At the mid portion of the rotator interval, the CHL covers the superior aspect of the LBT, with the SGHL forming a T-shaped junction with the CHL.
- Near the medial border of the rotator interval, the SGHL is a round structure lying anterior to the LBT.
- The CHL forms a U-shaped roof over the LBT and SGHL.


Transverse ligament
Coracohumeral ligament
Supraspinatus muscle
Bicep tendon
Subscapularis muscle

Surgical Techniques

-Trans-interval rotator cuff repair

Rotator Interval: capsule, SGHL, and the coracohumeral ligament that bridge the gap between the supraspinatus and the subscapularis



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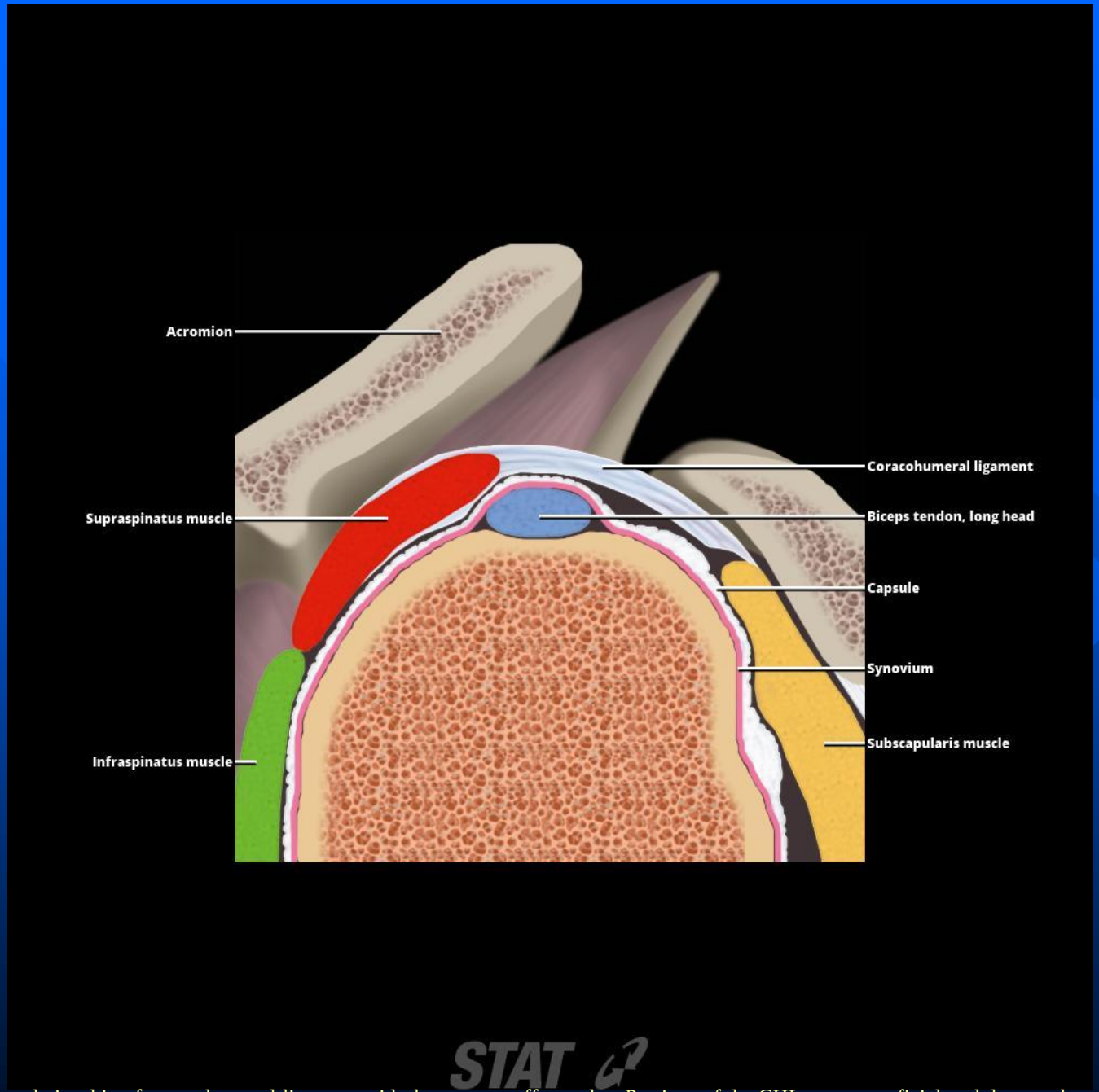
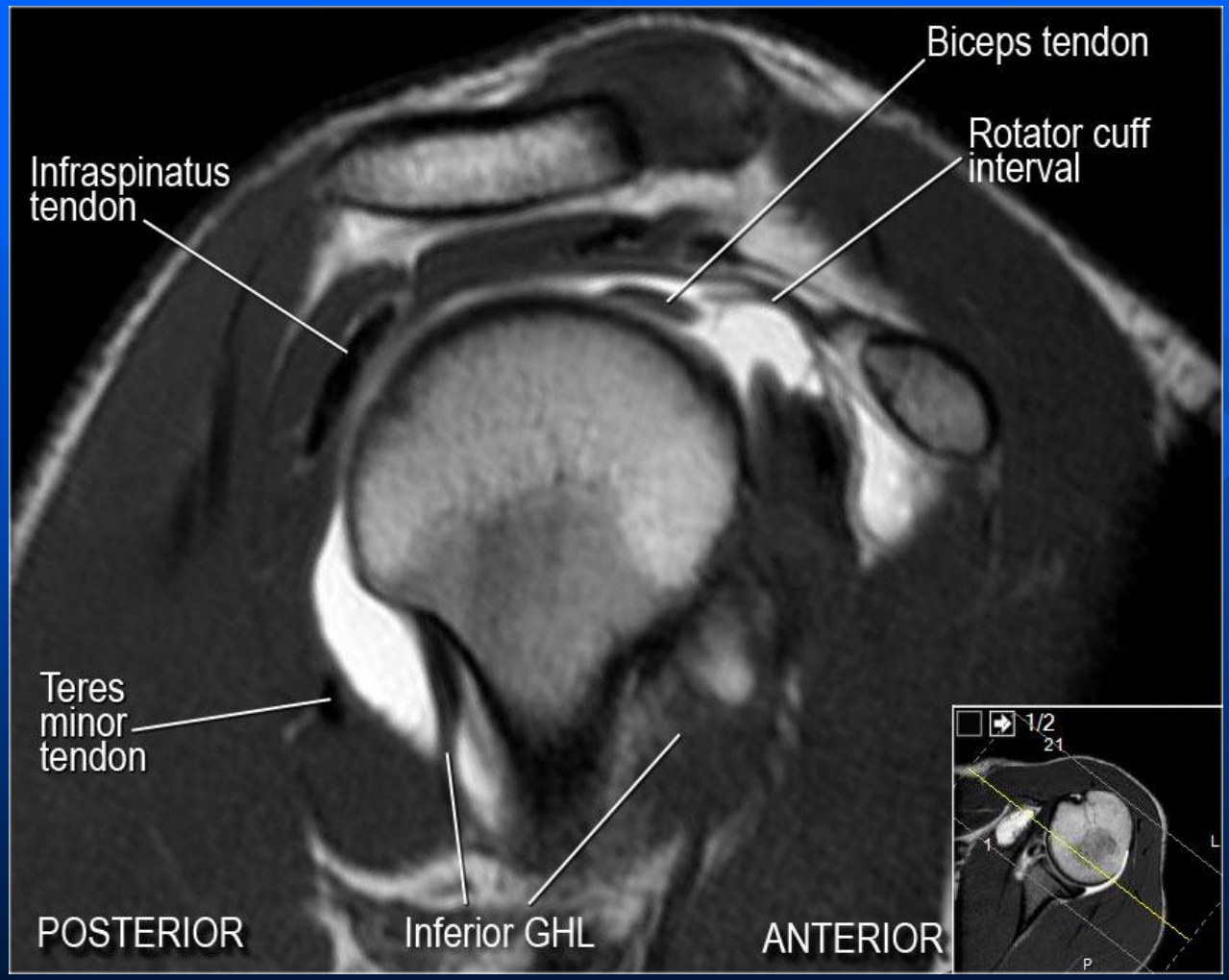


Graphic shows the relationship of coracohumeral ligament with the rotator cuff muscles. Portions of the CHL pass superficial and deep to the supraspinatus muscle. The CHL attaches to the superior border of the subscapularis muscle.

Rotator Cuff Interval

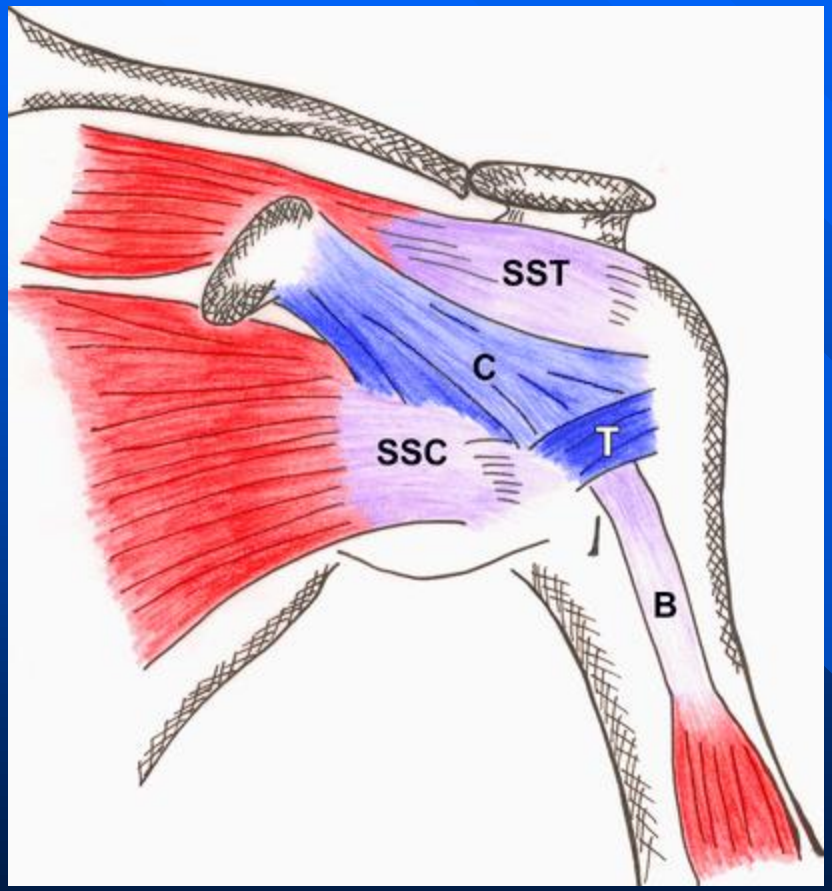


Where surgeons enter joint.

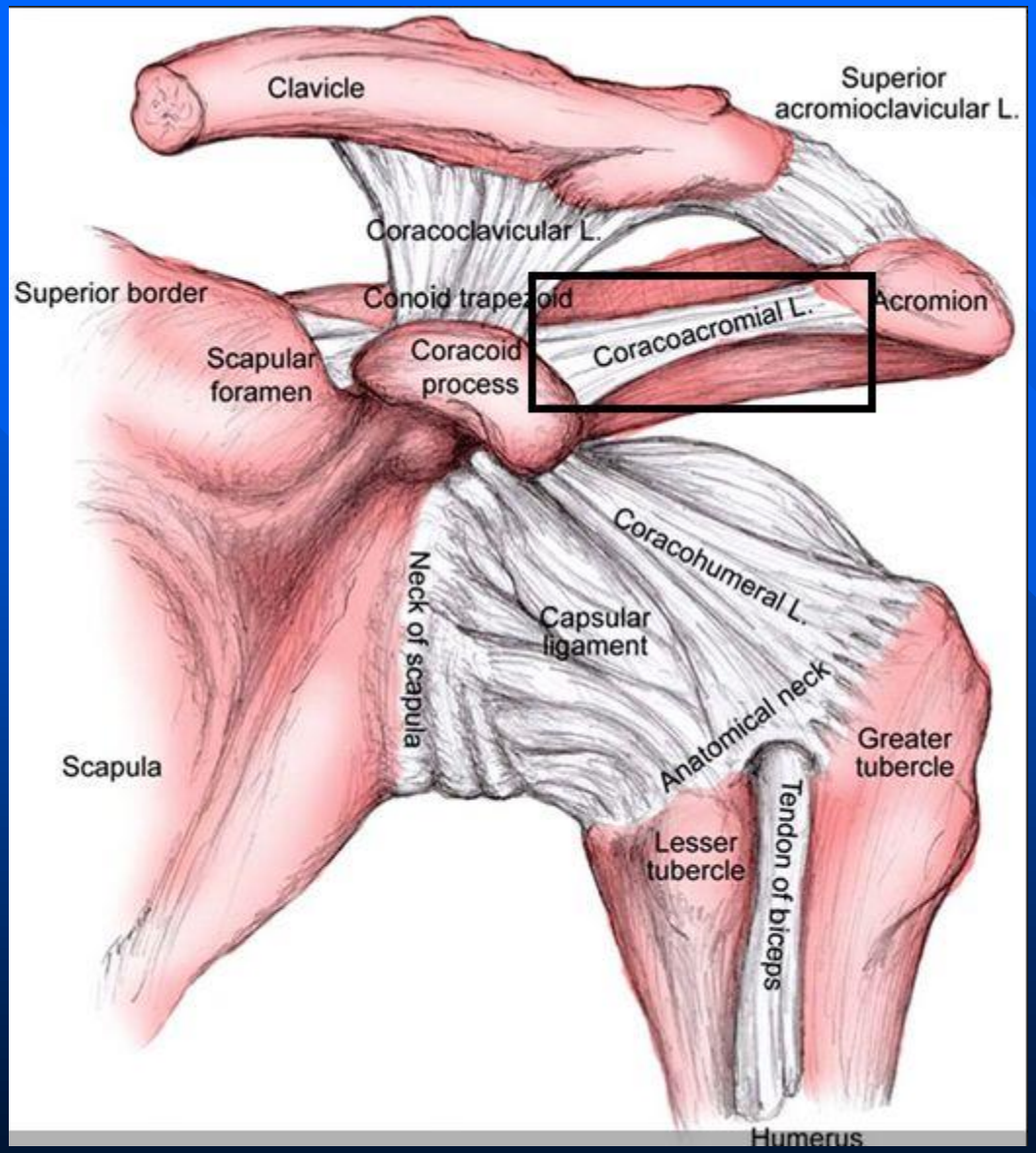
Coracohumeral ligament

- Originates from the coracoid process base (lateral surface)
- runs laterally across the glenohumeral capsule and covers the long head of biceps tendon superiorly
- attaches to the margin of the greater and lesser tubercles of the humerus, and along the transverse ligament bridging the bicipital groove

Frontal view depicts anatomic boundaries of rotator interval

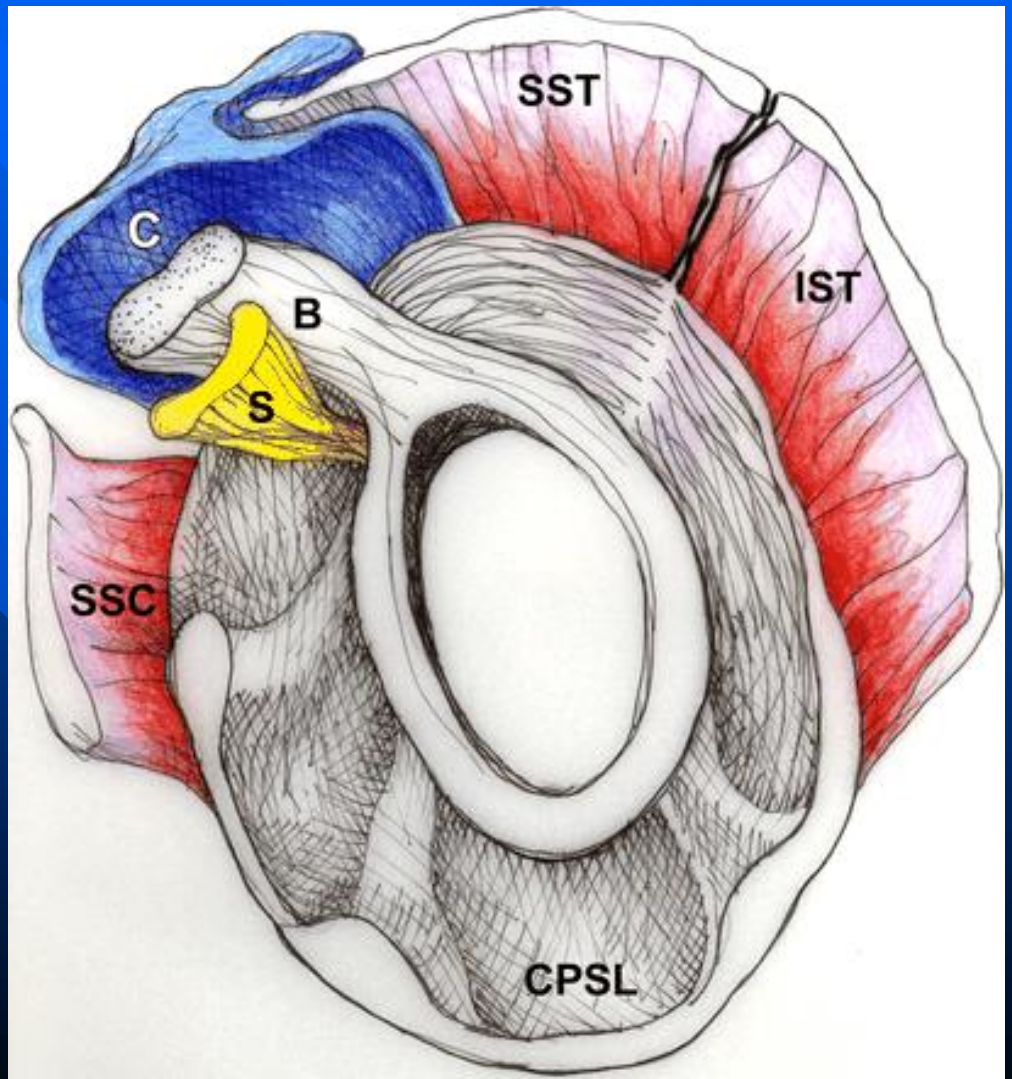


- *B* = long head of biceps brachii tendon
- *C* = coracohumeral ligament
- *SSC* = subscapularis tendon
- *SST* = supraspinatus tendon
- *T* = transverse humeral ligament


Clavicle
Superior acromioclavicular L.
Coracoclavicular L.
Superior border
Conoid trapezoid
Acromion
Coracoacromial L.
Scapular foramen
Coracoid process
Coracohumeral L.
Neck of scapula
Capsular ligament
Anatomical neck
Greater tubercle
Scapula
Tendon of biceps
Lesser tubercle
Humerus

coronal plane depicts association between

- long head of biceps brachii tendon *(B)*
- coracohumeral ligament *(C)*
- superior glenohumeral ligament *(S)* medially.
- *CPSL* = glenohumeral capsule,
- *IST* = infraspinatus,
- *SSC* = subscapularis
- *SST* = supraspinatus



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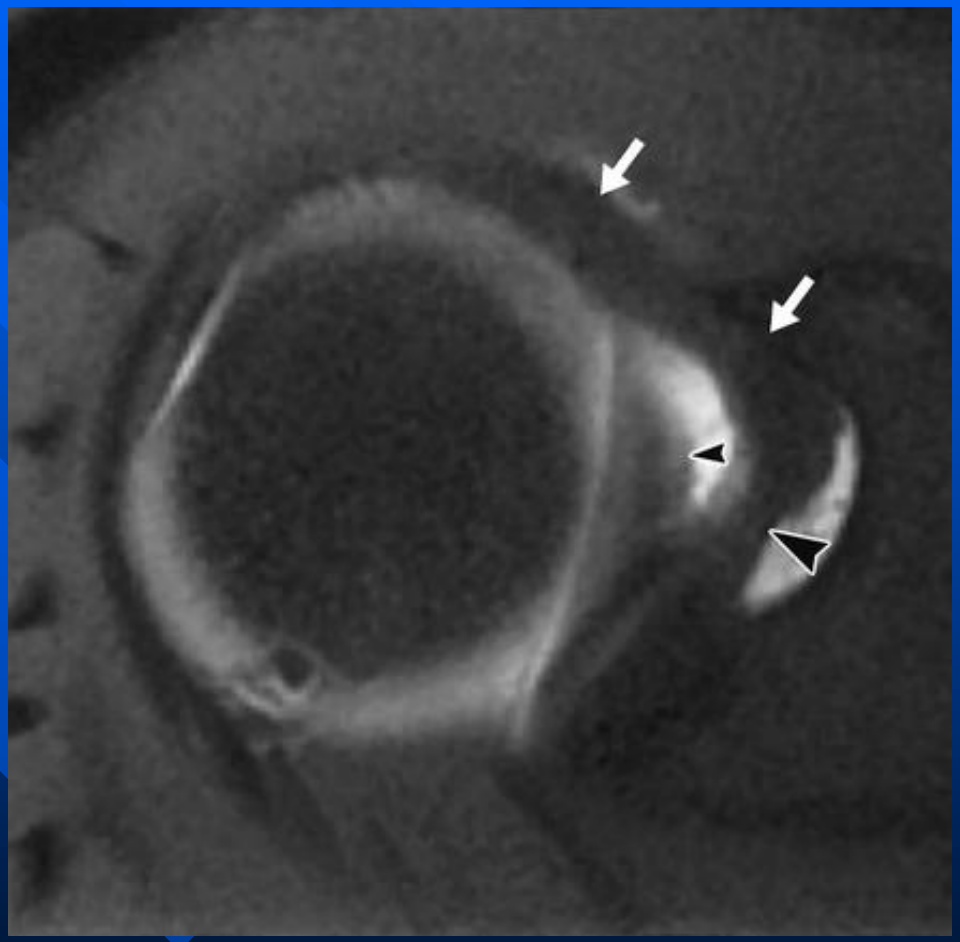
Proximal portions of coracohumeral ligament (arrows), superior glenohumeral ligament (large arrowhead), and nearby long head of biceps brachii tendon (small arrowhead) are shown. Note normal relationship between the smaller superior glenohumeral ligament as it joins the relatively more robust coracohumeral ligament.



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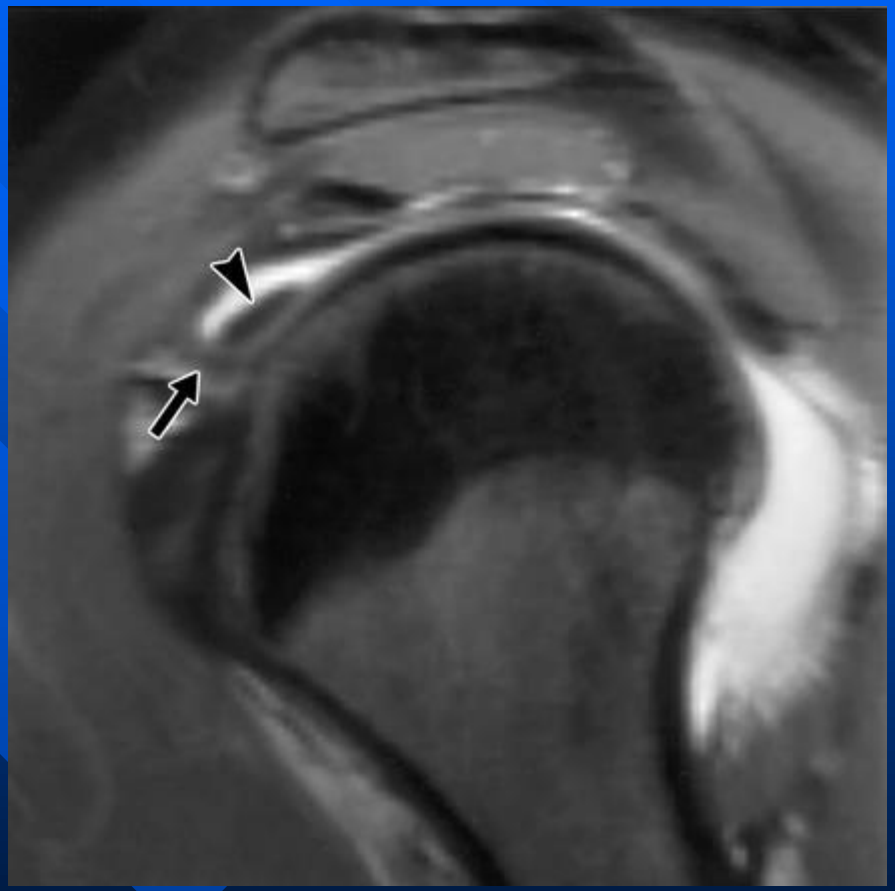
Blended coracohumeral and superior glenohumeral ligaments (arrow) trace inferiorly and medially to long head of the biceps brachii tendon (arrowhead) before inserting on lesser tuberosity.



Rotator cuff Interval Tear